

**ABSTRACT OF THE DISCLOSURE**

An apparatus and method for analyzing the performance of an ATM switch, and an ATM switching system employing the same. The apparatus includes a traffic detecting portion for detecting traffic of constant bit rate connection type data and available bit rate connection type data input to the ATM switch installed in a communication network for processing a data circuit switching, and a performance analyzing portion for calculating a performance of processing the constant bit rate connection type data and the available bit rate connection type data according to information related to the detected traffic of the constant bit rate connection type data and the available bit rate connection type data. According to the apparatus and method, and an ATM switching system employing the same, performance of the ATM switch can be analyzed and the analyzed result can be used in designing the ATM switch.